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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,058	04/23/2001	Michael H. Spritzer	11156.81	5717

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EXAMINER	
HRUSKOCI, PETER A	
ART UNIT	PAPER NUMBER
1724	11

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/841,058	Applicant(s) SPRITZER ET AL.	
	Examiner Peter A. Hruskoci	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10,12-17 and 33-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,2 and 4-9* is/are allowed.

6)☒ Claim(s) *10,12-17 and 33-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. Claims 33-40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 33 "disposing...substantially ambient pressure" lacks clear antecedent basis in the specification as originally filed, and appears to be drawn to new matter. Claims 34-40 depend from the above claims.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 10, 12-14, 16, 17, 33, 35, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. in view of Barton et al.. Ross et al. disclose (see col. 8 lines 10-56) a method for treating material substantially as claimed. The claims differ from Ross et al. by reciting that the material is heated without the addition of a substantial amount of oxidizer to separate the material into a volatile portion, which is hydrothermally treated to convert a fraction of the volatilized portion, or the solid is disposed in a first chamber at ambient pressure prior to heating and pressurizing to

volatilize a portion of the volatile material, and volatile portion is oxidized in a second chamber at a specific temperature and pressure. It is submitted that the amount of oxidant utilized in Ross et al. is considered patentably indistinguishable from the amount recited in the instant claims. Barton et al. disclose (see col. 3 line 65 through col. 5 line 22) that it is known in the art to utilize temperatures and pressures within the recited range in a second chamber to aid in oxidizing vapor or a volatile portion from a first reaction chamber. It would have been obvious to one skilled in the art to modify the method of Ross et al. by utilizing the recited hydrothermal treatment or the recited temperatures and pressures in the second chamber, in view of the teachings of Barton et al., to aid in oxidizing contaminants in the volatile portion. The specific amount of oxidizer added, and the specific temperatures and pressures utilized in the first and second chambers would have been an obvious matter of process optimization to one skilled in the art, depending on the specific material treated and results desired, absent a sufficient showing of unexpected results.

4. Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. in view of Barton et al. as above, and further in view of Bremer et al. 5,562,834. The claims differ from references as applied above by reciting steps for injecting steam into the first and second chambers. Bremer et al. disclose (see col. 2 line

25 through col. 3 line 34) that it is known in the art to inject steam and wastewater into a chamber, to aid in separating organic impurities from the wastewater. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited steps for injecting steam in view of the teachings of Bremer et al., to aid in separating organic impurities from the material.

5. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. in view of Barton et al. as above, and further in view of Modell et al. 5,252,224 The claims differ from the references as applied above by reciting steps for separating carbon dioxide from process effluent and liquefying the separated carbon dioxide. Modell et al. disclose (see col. 5 line 17 through col. 7 line 51, and col. 19 lines 2-52) that it is known in the art to separate carbon dioxide from an oxidized process effluent and liquefy the separated carbon dioxide, to aid in recovery of the carbon dioxide. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited steps for separating and liquefying the carbon dioxide in view of the teachings of Modell et al., to aid in recovery of the carbon dioxide.

6. Claims 15 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. in view of Barton et al. as above, and further in view of Hazlebeck et al. 6,054,057. The claims differ from the references as applied above by reciting the first and

second chambers are located in a single pressure vessel, and by reciting a step for using a auger to mix and transport material in the first chamber. Hazlebeck et al. disclose (see col. 5 line 57 through col. 9 line 25) that it is known in the art to utilize a single reaction vessel including an upper backmixing section or chamber and a lower plug flow section or chamber, and a auger to aid in dislodging solids from the wall of a reaction chamber, and transporting the solids to an exit port. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited chambers and auger in view of the teachings of Hazlebeck et al., to aid in transporting and hydrothermally treating the material.

7. Claims 1, 2, and 4-9 are allowable.

8. Applicants argue that Ross et al.. fail to disclose volatilizing a portion of the material without the addition of a substantial amount of oxidizer as recited in amended claim 10. It is submitted that the addition of 0.1% of oxidant by weight of the material as disclosed in Ross et al. appears to be patentably indistinguishable from the amount recited in claim 10.

9. Applicants allege that because Ross et al. add the waste directly into a hydrothermal oxidation reactor, certain waste materials cannot be efficiently treated. Applicants have not provided sufficient factual evidence to support the above allegation.

10. Applicants arguments concerning Bremer et al., Modell et al. and Hazlebeck et al. appear to be based on the propriety of the combination of Ross et al. and Barton et al.. It is submitted that this combination is deemed properly applied for reasons stated above.

11. Applicants argue that none of the cited references disclose the step of disposing a solid contaminated with a volatile material in a first chamber at a substantially ambient pressure and thereafter pressurizing to the recited pressure in a first chamber and oxidizing the volatilized portion in a second chamber. It is submitted that the use of ambient pressure in the first chamber appears to be drawn to new matter for reasons stated above. It is noted that Ross et al. as applied above discloses the treatment of contaminated solids or slurries. Furthermore, the specific pressures utilized in the first chamber would have been an obvious matter of process optimization to one skilled in the art, depending on the specific solid treated and results desired, absent a sufficient showing of unexpected results.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (703) 308-3839. The examiner can normally be reached on Monday through Friday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached on (703) 308-1972. The fax phone number for this Group is (703) 872-9310 (non-after finals) and 703-872-9311 after finals.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661 .

Peter A. Hruskoci
Primary Examiner
Art Unit 1724

P. Hruskoci
May 20, 2003